ABSTRACT

$$Ar^{1}CH_{2}CN (5) Ar^{2}-C-OR^{2} (6) CN Ar^{1} Ar^{2} (1) OCN Ar^{1} Ar^{2} (1) OCN Ar^{2} Ar^{2} (1) OCN Ar^{2} Ar^{2$$

There is provided a process for stereoselectively producing E-form of 3-acyloxyacrylonitrile compound (3) or Z-form which comprises reacting 3-oxopropionitrile compound (1) with an acid chloride (2), characterized in that the reaction is conducted with removal of hydrogen chloride, or by using an organic base or an inorganic base, to thereby regulate the stereostructure of the product; a process for producing the compound (1) characterized by reacting acetonitrile compound (5) with an aromatic ester compound (6) by use of an alkali metal alkoxide in a hydrocarbon solvent while removing alcohol formed as a by-product by azeotropic distillation in a separating tank; and a process for isomerizing E-form of 3-acyloxyacrylonitrile compound to Z-form thereof by use of an organic base.